IOWA DEPARTMENT OF ENVIRONMENTAL QUALITY
Report Of Investigation

INVESTIGATION DATE

Current 4/7/80 | Last 2/26/80

TO: (Facility Name, Location & Address)

Collis Company
Chamberlain Manufacturing Corporation
P. O. Box 231, 2005 South 19th Street
Clinton, IA 52732
Facility #23-26-1-00

RE: (Specify Investigation Purpose Or Cite Rule)

FOLLOW-UP SAMPLING INSPECTION

FROM:

(Use Stamp) Region No. 6
P. O. Box 27
Washington, Iowa 52353

Persons Contacted (Name & Position)

Virgil Showerman, Plant Manager

Nello Arterburn, Plating Superintendent

OBSERVATIONS/RECOMMENDATIONS

This inspection was conducted to collect additional samples following excessive concentrations analyzed from samples collected during the last inspection.

All samples collected were grabs. The following samples were collected:

A. Effluent sample collected from copper tubing sample tap.
B. Discharge sample from 12 inch concrete storm drain which reportedly passes under sludge lagoons.
C. Mill Creek bottom sediment sample collected an estimated 30 feet upstream of 12 inch storm drain.
D. Sludge deposit in Mill Creek across from plant outfall.
E. Sludge deposit in Mill Creek at S19th Street bridge.
F. Sludge deposit in Mill Creek, an estimated 400 - 500 feet downstream of plant effluent.

The results of the effluent samples were within the permitted effluent limitations.

The results of the 12" drain tile again do not conclusively prove or disprove the possibility of leaching from the sludge lagoons.

The results of Mill Creek bottom sediment verify excessive accumulations of sludge in the Creek from the discharge from Collis Company. The following table illustrates a comparison of the bottom sediment results.

Parameter	Upstream Sample	Accumulation near Discharge	120 feet Downstream	400'- 500' Downstream
Chromium	190	26000	38000	29000
Copper	29	82	110	230
Lead	59	49	99	110
Nickel	42	170	170	210
Zinc	1100	29000	51000	43000
Hex Chrome	1	6	5	14

SUSPENSE DATE	Signature	Date
1 1	Inspector Steve Hoambrecker	6/5/80
	Regional Administrator Earl C. Voelker, Sr. Earl C. Voelker	6/12/80

Enclosures (Specify)

Distribution: Regional Office; Central Office; Inspected Facility

RP-5 (8-79)

312903

REPORT OF INVESTIGATION

Collis Company
Chamberlain Manufacturing Corporation
Clinton, IA 52732

FACILITY No. 23-26-1-00

FOLLOW-UP SAMPLING INSPECTION

Parameter	Upstream Sample	Accumulation near Discharge	120 feet Downstream	400' - 500' Downstream
Cyanide	29	1900	2800	2600

All results reported as PPM

All parameters are elevated above the background levels monitored, especially chromium, zinc and cyanide.

It is believed that one operation problem that might contribute to the sludge accumulation in the creek could occur during cleaning periods of the diatomaceous earth filter, as explained during the last inspection if certain valves were not closed.

Due to the extent of accumulated sludge in Mill Creek from the discharge of Collis Company, this matter is being referred to Department attorneys for any necessary follow-up action.

SH:w

SLUDGE ANALYSIS REPORT

UNIVERSITY HYGIENIC LABORATORY
DES MOINES BRANCH
H.A. WALLACE BUILDING
E. 9TH AND GRAND
DES MOINES, IOWA 50319
(515) 281-5371

☐ High Rate Application ☐ Low Rate Application

Town	Clinton	Clinton	Clinton
Source	Mill Creek, Collis Co.	Mill Creek	Mill Creek, Collis Co.
Specific Location	Sludge bank across from Collis outfall	Collis Company Sludge bank, est. 400 to 500' downstream Collis Company	Est. 120' downstream Collis discharge
Date Collected	4/7/80	4/7/80	4/7/80
Date Received	4/8/80	4/8/80	4/8/80
Lab Number	6840	6841	6842
Field Data			
Collection Time	1:30		1:40
pH (units)			
Temperature			
ANALYSIS BY DRY WEIGHT			
% Total Kjeldahl Nitrogen			
% Ammonia Nitrogen			
% Nitrate Nitrogen			
% Total Phosphorus			
% Potassium			
Metals (ppm)			
Arsenic	26,000	29,000	38,000
Cadmium	82	230	110
Chromium	49	110	99
Copper			
Lead	170	210	170
Mercury	29,000	43,000	51,000
Nickel	6	14	5
Zinc	1,900	2,600	2,800
Hexavalent Chromium			
Cyanide			
% Total Residue			
% Volatile Residue			
pH (units)			

REMARKS: (Lab) Metal caps on jars were not isolated from samples by use of plastic sheets.

COLLECTOR: Hoambrecker
REPORT TO: DEQ Region 6

W. J. Hausler, Jr., Ph.D.
Director
MAY 22 1980

SLUDGE ANALYSIS REPORT

UNIVERSITY HYGIENIC LABORATORY
DES MOINES BRANCH
H.A. WALLACE BUILDING
E. 9TH AND GRAND
DES MOINES, IOWA 50319
(515) 281-5371

☐ High Rate Application ☐ Low Rate Application

Town	Clinton		
Source	Mill Creek, Collis Co.		
Specific Location	Upstream Collis discharge		
Date Collected	4/7/80		
Date Received	4/8/80		
Lab Number	6843		
	Field Data		
Collection Time	1:20 PM		
pH (units)			
Temperature			
	ANALYSIS BY DRY WEIGHT		
% Total Kjeldahl Nitrogen			
% Ammonia Nitrogen			
% Nitrate Nitrogen			
% Total Phosphorus			
% Potassium			
Metals (ppm)			
Arsenic			
Cadmium			
Chromium	190		
Copper	29		
Lead	59		
Mercury			
Nickel	42		
Zinc	1100		
Hexavalent Chromium	1		
Cyanide	29		
% Total Residue			
% Volatile Residue			
pH (units)			

REMARKS: (Lab) Metal cap on jar not isolated from sample by use of plastic sheet

COLLECTOR: Hoambrecker
REPORT TO: DEQ Region 6
Washington, Iowa

W. J. Hausler, Jr., Ph.D.
Director